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UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
EL PASO DIVISION
UNITED STATES OF AMERICA)No. EP:19-CR-1506-PRM
vs.)El Paso, Texas
ANTONIO ARROYO, JR.)
)September 24, 2019

TESTIMONY OF SEAN MacMANUS and STEPHANIE KNAPP
Before the Honorable Philip R. Martinez

A P P E A R A N C E S:

FOR THE GOVERNMENT:
MR. CHRISTOPHER MANGELS

Assistant United States Attorney
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El Paso, Texas 79901

FOR DEFENDANT:
MR. ART WERGE

1413 Montana
El Paso, Texas 79902

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computer-aided transcription.

1 THE COURT: Call the next witness, please.

2 MR. MANGELS: The United States calls Sean MacManus to
3 the stand.

4 THE COURT: Raise your right hand. Do you solemnly
5 swear the testimony you give in this cause will be the truth,
6 the whole truth, and nothing but the truth so help you God?

7 AGENT MacMANUS: I swear.

8 THE COURT: Have a seat. They will be asking you
9 questions. I need for you to speak in the direction of the
10 microphone. I can control the volume to some extent. Don't
11 get so close that the P's pop and the T's make a noise. We'll
12 control that volume. I would love for everybody in the gallery
13 to be able to hear you.

14 State your name for the record and spell your last name.

15 AGENT MacMANUS: Sean MacManus, M-a-c-M-a-n-u-s.

16 THE COURT: Thank you. You're under oath.

17 Mr. Mangels, go ahead.

18 MR. MANGELS: Thank you, Your Honor. May it please
19 the Court.

20 THE COURT: Thank you.

21 DIRECT EXAMINATION BY:

22 MR. MANGELS:

23 Q Mr. MacManus, where do you work?

24 A I am a Special Agent with the
25 Federal Bureau of Investigation.

1 Q How long have you been with the FBI?

2 A 14 years.

3 Q What do you do for the FBI?

4 A I am what is called national asset for the
5 Cellular Analysis Survey Team.

6 Q Did you have any law enforcement experience before
7 joining the FBI?

8 A Yes. I was a police officer in Arlington, Virginia.

9 Q I will show you what was marked as Government's 17.
10 Do you recognize this document?

11 A Yes, I do.

12 Q What is it?

13 A A copy of my curriculum vitae that I provided for the
14 trial today.

15 Q Is this a fair and accurate copy of that
16 curriculum vitae?

17 A Yes.

18 MR. MANGELS: At this time, we move to admit
19 Government's Exhibit 17 into evidence.

20 THE COURT: Mr. Werge?

21 MR. WERGE: No objection.

22 THE COURT: Government's Exhibit 17 is admitted. Go
23 ahead.

24 MR. MANGELS: Can we publish?

25 THE COURT: You may, yes, sir.

1 Q Mr. MacManus, I would like to go through this briefly.
2 What is your educational background?

3 A I have a Master's in Education and a Bachelor's Degree
4 from the University of Notre Dame.

5 Q Let's talk about your training and experience. What
6 kind of training have you had in the field of device location
7 analysis?

8 A Probably close to 500 hours of training in cell phones
9 how they work, how cell phone networks work, radio frequency
10 theory, and how to read the different cell phone company
11 records. I had training from not only the Government, but also
12 we get trained by the five major cellular providers which are
13 AT&T, T-Mobile, Sprint, Verizon, and U.S. Cellular both by
14 their records custodians and their engineers.

15 Q Does your training expand beyond just using cellular
16 communications and other forms? Does it go into other forms of
17 device location analysis?

18 A Yes, it does. I had training from several companies
19 about, for example, Google location records and other location
20 records that you can use to kind of combine with the cell phone
21 records to find the location of a device.

22 Q How long have you been working in the area of device
23 location analysis?

24 A I was certified by CAST in 2015 so about four years.

25 Q How many prior cases have you worked in this area?

1 A Well over a hundred.

2 Q Have you ever instructed?

3 A Yes. I am a certified FBI instructor, and I taught
4 basic and advanced call detail record analysis to federal,
5 state, local law enforcement, and I also have given
6 presentations to prosecutors offices and other groups.

7 Q Have you ever testified previously as an expert?

8 A Yes, I have. I testified in a federal expert witness
9 hearing called a Daubert Hearing, and I testified in
10 state court as an expert in Virginia, Kansas, North Carolina,
11 and several times here in El Paso in Texas.

12 Q Have you ever been offered as an expert but not
13 recognized as an expert?

14 A No, never. No CAST member was ever disallowed as an
15 expert.

16 MR. MANGELS: At this time, we offer Agent MacManus as
17 an expert in the field of device location analysis.

18 THE COURT: Mr. Werge, do you have any questions on
19 his qualifications?

20 MR. WERGE: I do. I object to his qualifications.

21 THE COURT: Go ahead and voir dire him if wish.

22 MR. WERGE: Thank you.

23 CROSS-EXAMINATION BY:

24 MR. WERGE:

25 Q Good afternoon, Agent MacManus.

1 A Good afternoon.

2 Q Thank you for being here, sir. Do you have a science
3 degree?

4 A No.

5 Q Do you have an engineering degree?

6 A No, I do not.

7 Q Do you have any kind of technical degree?

8 A No, I don't.

9 Q Are you a Certified Telecommunications Network
10 Specialist?

11 A No, I am not.

12 Q Are you a Certified Wireless Analyst?

13 A No, I am not.

14 Q Are you an NK Certified Examiner?

15 A No, I am not.

16 Q Are you an Access Data Certified Examiner?

17 A No, I am not.

18 Q Do you recognize those certifications?

19 A Some of them, yes. I am familiar with them.

20 Q Those are relevant certifications in the field that
21 you pose as an expert?

22 A Not necessarily, sir, no.

23 Q Sir, let me talk to you about being independent and
24 neutral. You're a Special Agent?

25 A Yes, sir.

1 Q With the FBI?

2 A Yes, sir.

3 Q You get paid by the FBI?

4 A Yes, sir.

5 Q You get paid by the FBI to testify here in this Court?

6 A Yes; part of my job.

7 Q You, in fact, have been assigned to FBI El Paso as an
8 agent?

9 A Yes, sir, I have.

10 Q You are clearly on the side of the FBI and the
11 Government in this case.

12 MR. MANGELS: Objection. Argumentative.

13 THE COURT: Sustained. Struck, disregard. Question.

14 Q Has this technique been independently tested outside
15 of the FBI?

16 A The basis for the technique has publications and
17 criticism is well accepted in the scientific field. The actual
18 technique of locating -- I hate to say locating the device. I
19 am not locating the exact location of the device, but that
20 technique, no, we are pretty much the only ones that use this.

21 Q Is it fair to say it has not been independently tested
22 outside of the FBI?

23 A Not for the purposes we use it for. It has been
24 tested by the networks.

25 Q Have you published any peer reviewed articles, sir?

1 A No, I have not.

2 Q What is the potential rate of error of this technique?

3 A I can't give you a potential rate of error of the
4 technique.

5 Q What is a known rate of error of this technique?

6 A The records are 100% accurate of how the phone
7 connected to which side of the tower, and I can generally
8 explain that setup and what general area the phone is in. I
9 can't give you an error rate for that because I am not telling
10 you what the coverage area of the tower exactly is as something
11 you can measure. There is nothing you can measure with that in
12 the way I think you're asking.

13 Q I want to make sure we understand. You say the
14 records are 100% accurate. Is that correct?

15 A If you know how to read them, yes, the records are --
16 the phone connected to that side of the tower based on the
17 records. If it didn't, there would not be a record. It is how
18 they are generated. Does it make sense?

19 Q No, sir. Let's make sure. Those records are
20 Call Detail Records?

21 THE COURT: Hold on. You can't ask him questions. He
22 gets to ask you questions.

23 A I apologize.

24 THE COURT: It's okay. Question.

25 Q When you talk about the records, we want to make sure

1 the jury understands. Are you referring to what is called the
2 Call Detail Records?

3 A Yes, sir, I am.

4 Q Those are the financial records that we get for
5 billing purposes?

6 A The phone company uses their -- phone company records.

7 Q The billing records we get?

8 A Not exactly. They are similar but not exactly.

9 Q You said you have verified those as 100% accurate,
10 sir?

11 A In my experience, based on my training and experience,
12 the phone records are accurate if you're reading them
13 correctly.

14 Q Thank you, sir. I think my question is have you
15 verified them as 100% accurate, sir?

16 A In my experience and training, yes, the phone records
17 are 100% accurate if you're reading them correctly for what we
18 are using them for.

19 Q My question is have you --

20 MR. MANGELS: Objection. Asked and answered.

21 THE COURT: Asked and answered. Go on.

22 Q Have they been verified by any outside scientific
23 agency or organization?

24 A In what way?

25 Q As being 100% accurate.

1 THE COURT: What is the "they?"

2 MR. WERGE: The "they" is he is referring to
3 Call Detail Records which I believe are --

4 THE COURT: Finish your question.

5 A Not to my knowledge, sir.

6 Q Sir, how can you tell us your conclusion? Because is
7 any science, except math or geometry, can you tell us of any
8 other science that is 100% accurate?

9 A No, I can't.

10 Q Outside of your agency, sir, what is the sense of this
11 technique? I am talking about other forensic experts.

12 A It is not used by forensic experts. It is used by
13 other governments, by engineers, researchers, and by the phone
14 companies themselves.

15 Q Is it fair to say that there are many forensic experts
16 with the certifications that I just mentioned to you that say
17 this technique is not reliable?

18 A You have to tell me who the experts were and what the
19 arguments were. I am sure there are people that say it is not
20 reliable. I disagree.

21 Q I can do that, sir.

22 THE COURT: I need a question.

23 Q Are you familiar with Larry Daniels?

24 A I am somewhat with Mr. Daniels, yes.

25 Q In fact, Mr. Daniels wrote an article published in the

1 Washington Post. Is that correct?

2 A I don't know that article, sir. You have to give me
3 the specific article.

4 THE COURT: We're dealing with the issue of
5 qualifications to testify as an expert. You are going to have
6 ample opportunity to cross-examine. Do you have other
7 questions relating to qualifications?

8 MR. WERGE: I will pass the witness.

9 THE COURT: Any redirect on qualifications?

10 MR. MANGELS: Just briefly.

11 REDIRECT EXAMINATION BY:

12 MR. MANGELS:

13 Q Agent MacManus, the Defense went through a number of
14 certifications with you and asked if you had any of those
15 certifications. You said you had not?

16 A Yes.

17 Q Generally speaking, of the ones you recognize, what
18 are the certifications for?

19 A Most of the certifications that the Defense mentioned
20 are for forensic analysis of a phone where you are actually
21 connecting a phone to see what is on the phone. They have
22 nothing to do with the phone company records.

23 Q That does not have to do with your testimony as to
24 device location analysis?

25 A No, not at all.

1 MR. MANGELS: Nothing further. Thank you.

2 THE COURT: The Court having considered the objection
3 as to qualifications is going to overrule the objection. The
4 Court is going to find there is no requirement under law that
5 any expert witness possess the certainty that might be
6 associated with math or science to the extent it may be 100%
7 certain.

8 The Court is going to find that generally one is allowed to
9 testify as an expert witness if there is scientific, technical,
10 or other specialized knowledge, or experience, or training that
11 might assist the jury in understanding the evidence in
12 determining any fact in issue. Therefore, this witness the
13 Court finds is qualified by knowledge, skill, experience,
14 training, or education and may testify as to the specific
15 subject of the testimony.

16 Merely because such a witness has expressed such an opinion
17 does not mean, however, that you must accept this opinion. You
18 should judge this testimony as you judge the testimony of any
19 other witness. You may accept it, you may reject it, you may
20 give it the weight and value you think it deserves in light of
21 the education, experience, and testimony that is offered.

22 A good number of the questions went to the weight. You can
23 certainly address that on cross-examination, not as to the
24 admissibility. The Court will afford the opportunity for the
25 witness to testify as an expert and offer opinions in

1 connection with the area of specialty.

2 Question.

3 MR. MANGELS: Thank you.

4 Q Agent MacManus, you mentioned the CAST team a couple
5 of times. What is the CAST team or what does it stand for?

6 A CAST stands for the Cellular Analysis Survey Team. It
7 is a group of special agents and task force officers who
8 receive specialized training in cell phone networks, radio
9 frequency theory, and how cell phones connect to the towers,
10 and how to read the companies records, and we use that to
11 assist in investigations and to testify in court.

12 Q Overall, broadly please, simply explain how does a
13 cell phone work?

14 A Basically, your phone, which I assume no one has one
15 in the courtroom today, your phone is constantly scanning the
16 towers around it. The towers put out radio energy. Your phone
17 is scanning and scanning for what towers it sees while sitting
18 here, or driving, or walking.

19 When you want to do something with the phone, make a call,
20 send a text, or working on the Internet, the phone is looking
21 for the clearest and strongest signal from the cell phone
22 tower. When you do the activity, the phone connects to that
23 tower.

24 Once the phone connects to that tower, a Call Detail Record
25 is generated on that phone connected to a certain side of the

1 tower or at least to the tower.

2 Q What is a Call Detail Record or a Cell Site Record?

3 A The Call Detail Records are very similar to what you
4 see in your phone bill when we got them on paper or online
5 where it has the date and time of the call, who you called, who
6 called you, what you were doing. It has a little bit of
7 additional information at the end that just indicates which
8 tower the phone used when it started that activity.

9 Q How would you use the records in your analysis?

10 A The cell phone companies keep the records both for
11 billing and to maintain the networks and also keep a list of
12 all of the towers in the world and where exactly they are for
13 the same reason.

14 So, we take the Call Detail Records for the what the phone
15 was doing, and we take the tower records from that phone
16 company, and we know where those are, and I combine them and
17 put them on a map to show generally the general area the phone
18 was in based on what towers were there and what towers the
19 phone was using.

20 Q In addition to this kind of cell site analysis, can
21 location data be received from others sources?

22 A Yes, there is other sources.

23 Q What types of sources?

24 A For example, sometimes you can get location
25 information off a physical phone if someone -- forensic

1 examiner dumps the phone, Google maintains location, Apple,
2 sometimes Facebook, and other companies that are locating
3 location information for your phone for their own reasons.

4 Q Have you previously worked with, for example, Google
5 location data?

6 A Yes, I have.

7 Q And have you personally received training or
8 researched the type of location data that is collected and
9 maintained by Google?

10 A Yes.

11 Q What type of location data does Google collect?

12 A Google is constantly collecting location information
13 from any device that either uses Android operating system or
14 doing applications like doing maps or Chrome web browser.

15 Google is collecting location information based on usually
16 five areas; what cell phone tower the phone might have been
17 using at the time, a WiFi access point like a router you think
18 in your house or business using WiFi, GPS from the phone,
19 Bluetooth from the phone, and also IP addresses,
20 Internet Protocol address, like when you get on the Internet at
21 your house on a regular Internet connection.

22 Q When Google provides this location information
23 pursuant to a legal request like a search warrant, what type of
24 information would they provide?

25 A Google provides the date and time of the connection to

1 Google, the latitude and longitude that you can map for where
2 Google estimates the location of the device was, and Google
3 also gives you a radius or margin of error in meters where
4 Google estimates we think that location is accurate to about
5 this distance, and you can map that as well to show the area
6 the phone or the device was most likely in.

7 Q You mentioned, I think, GPS data, the latitude, and
8 longitude. Can you explain what GPS is generally?

9 A GPS is the Global Positioning System. Most everyone
10 if you use a smartphone are familiar with it. If I have a
11 group of 31 satellites over the earth, and when your device
12 sends out a signal to multiple satellites, based on how you're
13 setup, they can estimate where your location is on the earth
14 based on the signals they are receiving. The different
15 satellites basically triangulate your position and tell you
16 where you are. It is the basis for a lot of mapping apps and
17 programs.

18 Q Does GPS always work?

19 A No.

20 Q What situations might it not work?

21 A The problem is you have to have a good signal to
22 several satellites. If you're indoors, such as in the
23 courtroom, if it is blocked by a big building in an urban area,
24 in a car, and there is different situations where you may not
25 get a strong GPS signal so the GPS isn't quite sure where you

1 are.

2 Q You mentioned also WiFi access points as another
3 location data?

4 A Yes.

5 Q Can you explain briefly what it is?

6 A If you are not familiar with WiFi, WiFi is basically
7 another radio frequency similar to how cell phones work. It is
8 sending out radio signals that carry basically Internet
9 traffic. You can connect your phone to a WiFi to get on the
10 Internet. It is a wireless signal, radio signal, for Internet.
11 The distances for WiFi don't reach very far.

12 Google measures the WiFi access points around you, and how
13 strong that signal is, and they estimate your location based on
14 that so they know here is the WiFi all around you that your
15 phone is seeing, and everyone else's phone is seeing, and what
16 the signals are. They have a database of that and compare it
17 to the database and know you are probably about here because
18 you see hypothetically the ten WiFi's around you have certain
19 signal levels to figure out where you are.

20 Q Why would Google and other companies want to use all
21 of this stuff to identify location?

22 A The primary two reasons for Google are advertising.
23 Google makes the vast majority of its money from advertisers.
24 They want to know what your location is so that they can send
25 you ads based on where you are.

1 For example, if you go into Home Depot and your device can
2 tell Google you are at Home Depot, Home Depot pays Google for
3 that information to send you Home Depot ads while you're there
4 to buy things there basically. Google does it primarily for
5 advertising but also for some other applications like
6 Google Maps.

7 I used Google Maps to get here today. It is Google Maps so
8 they know where you are to tell you how to get wherever you are
9 trying to go.

10 Q Safe to say it got you here correctly?

11 A Yes.

12 Q Between the GPS, WiFi, and cell site information, do
13 they have varying levels of precision as far as location?

14 A They do. There is -- theoretically, Google says they
15 collect Bluetooth information. I have not seen it in a legal
16 return yet. It would be the most precise because Bluetooth
17 does send the signal very far. You have to be pretty close to
18 a Bluetooth beacon to see it.

19 The WiFi would be the next most precise because WiFi
20 routers don't send the signal very far. You have to be
21 relatively close to the router to see it.

22 The GPS is usually -- excuse me, I will rephrase. The GPS
23 can be more precise than the WiFi sometimes. Those are about
24 equivalent depending where you are. The cell signal is the
25 least precise.

1 Q All in all, when doing the analysis and trying to
2 figure out the location of a device, how do you do that?

3 A I basically take the call records from the phone
4 company that tell me which towers and hopefully which side of
5 the tower the phone was using, and I get, as I mentioned
6 before, that list of towers, and I map them to show here is
7 where the tower was, I know the phone was connecting to this
8 tower on this date and time. I know based on how the networks
9 are setup and how the cell phone companies arrange the towers
10 and point the antennas that the phone is in this general area.

11 I can overlay that. If there is additional location
12 information, such as the Google location, I can take Google's
13 estimates of where the device was, and put it on the same map,
14 and basically corroborate to say I know the phone records are
15 accurate, and that's where the phone was in this area, and
16 Google says it was also in that area.

17 The Google can be helpful because sometimes it can be more
18 precise where the phone records generally give you the area,
19 but Google may say there is a GPS hit or a WiFi hit really
20 small so I know that area is a lot smaller where the device
21 most likely was.

22 Q Did you do that type of analysis for this case?

23 A Yes, I did.

24 Q Were you asked to review cell phone records and
25 cell phone location data as well as Google location data for a

1 phone associated with Antonio Arroyo, Jr?

2 A Yes, I was.

3 Q I will show you what was marked as
4 Government's Exhibit 19. Do you recognize this document?

5 A It looks like a business record affidavit from
6 T-Mobile about their records.

7 Q Does this match the phone number for the analysis you
8 did in this case?

9 A Yes, it does.

10 Q I will look at what was marked as
11 Government's Exhibit 22. Do you recognize this document?

12 A Yes. This appears to be T-Mobile Call Detail Record
13 from the same phone number.

14 Q Some of the data you used to prepare your report and
15 do your analysis in this case?

16 A Yes, it is.

17 MR. MANGELS: At this time, I move to admit
18 Government's Exhibits 19, 20, and 22 into evidence.

19 THE COURT: Mr. Werge?

20 MR. WERGE: No objection.

21 THE COURT: 19, 20, and 22 are admitted. Go ahead.

22 MR. MANGELS: Thank you. I am not publishing at this
23 time.

24 Q Look at Government's Exhibit 24. Do you recognize
25 this document?

1 A Yes, I do.

2 Q What is this document?

3 A It looks like the Google location history records from
4 a Google account.

5 Q Is this the data you used to perform your analysis and
6 prepare your report in this case?

7 A Yes, It is.

8 MR. MANGELS: At this time, I move to admit
9 Government's Exhibits 23 and 24 into evidence.

10 THE COURT: Mr. Werge?

11 MR. WERGE: No objection.

12 THE COURT: 23 and 24 are admitted. Go ahead.

13 MR. MANGELS: Thank you, Your Honor.

14 Q Agent MacManus, were you able to use those records to
15 determine general locations for this phone in December 2018?

16 A Yes, I was.

17 Q Did you use these records to prepare a report?

18 A Yes, I did.

19 Q I will show you what was marked as
20 Government's Exhibit 18. Do you recognize this document?

21 A Yes. This is a copy of the report I made regarding
22 the device location analysis I conducted.

23 Q You were the author of the report?

24 A Yes, I was.

25 MR. MANGELS: At this time, move to admit

1 Government's Exhibit 18 into evidence.

2 THE COURT: Mr. Werge?

3 MR. WERGE: Subject to my cross-examination.

4 THE COURT: Let me hold off on ruling on that. Give
5 me a second. The Court is going to reverse itself.

6 Government's 18 is admitted. You still may cross him on it.

7 It is his report. The predicate has been laid. Go ahead.

8 MR. MANGELS: Thank you, Your Honor. We ask to
9 publish at this time.

10 THE COURT: Go ahead.

11 Q Agent MacManus, I would like to go through the report
12 with you quickly. What does the first page show basically?

13 A Just a cover sheet showing I did the report and what
14 the records I analyzed were.

15 Q It shows basically a cell phone location and Google
16 location data?

17 A Correct.

18 Q I will go through the next pages. What do the pages
19 basically show?

20 A Showing basically the methodology we used to, as I
21 described earlier, to find the general area the device was in
22 and also some examples, slides, of cell phone towers, and what
23 they typically look like, and how they are divided usually into
24 sides or sectors on slide four.

25 The cell phone companies divide the towers up to get more

1 people in each tower basically, and the sectors are pointed in
2 a specific direction, down and out in that direction from the
3 tower, to provide coverage so they designed the network to
4 provide coverage to a certain geographical area. When you see
5 the records, it tells you which sector or side it is.

6 Q An example would be in slide five?

7 A Yes. Slide five is T-Mobile records. Each company
8 looks a little different and uses different terminology but
9 have the same information generally in the records.

10 Q Thank you. What is slide six an example of?

11 A Slide six is showing the different parts of the Google
12 location history, as I mentioned earlier, with the date and
13 time, the latitude, and longitude, and the estimated margin of
14 error, and Google also tells you which method they used to find
15 that location whether it was cell, or GPS, or WiFi.

16 Q What is slide seven?

17 A Slide seven is a legend showing the symbols you see on
18 the maps that follow with some of the addresses I was provided
19 as addresses that were of interest in the investigation.

20 Q Go to slide eight. What does it show?

21 A Slide eight is just showing the locations on the map,
22 the Arroyo residence, and the Arroyo work location, and the
23 victim's home, and Gallegos Park as well as showing the little
24 green circles are the T-Mobile cell towers in the area.

25 Q It seems there is not many cell towers in the area of

1 the work location, the home, and Gallegos Park. Is that
2 accurate?

3 A That is correct. The cell phone companies put towers
4 where they need coverage. If there is less people, you get to
5 more rural areas, and they start spreading the towers out
6 because the towers are very expensive, and they don't want to
7 put towers where they don't need them.

8 As you get closer to, for example, downtown El Paso at the
9 bottom of the slide, you can see there is a lot more towers
10 closer together because there is more people and need more
11 coverage there.

12 Q Is that significant in your analysis?

13 A Yes. It helps or is actually crucial to my analysis
14 because the range or coverage area of that tower depends on
15 what other towers are around it.

16 Q What does slide nine show?

17 A Slide nine is the T-Mobile activity from the records
18 for December 4th, 2018, from approximately 4 p.m. until 9 p.m.

19 Q Is it showing anything here?

20 A Yes. If you look at the kind of middle to bottom of
21 the slide, there is a call outbox that explains what tower the
22 phone was using, and the time the phone was using tower 89893
23 at approximately 6:22:18 p.m. It is telling me it was using
24 sector three which is side three of the tower.

25 Q What does slide ten show us?

1 A Slide ten is the same time period. This is
2 December 7th, 2018, from 4 p.m. until 7:33 p.m. There was both
3 phone activity and Google location activity during this time
4 period. The phone is, again, using the same tower as the other
5 day 89893, sector three, which is pointing in the direction of
6 the subject's work. The coverage area the tower is going out
7 from the tower in that direction.

8 Then, in that same time period, there is several numerous
9 Google location estimates starting from about 4:04 p.m., and
10 the last one was at 7:33 p.m., and the vast majority of them
11 were in the area of where Mr. Arroyo worked.

12 Q The Google location data appears to show the phone
13 traveling from this area here down towards Mr. Arroyo's work.
14 Would you say that is fair?

15 A Yes. Based on the times and the locations of the
16 device, it presumably moved west from the 4:04 p.m. into that
17 cluster of events for several hours in the area of Mr. Arroyo's
18 work.

19 Q What does slide 11 show?

20 A Slide 11 is the same day, December 7th, 2018, showing
21 the Google activity from 7:48 p.m. until 11 p.m. You can see
22 that at 7:48 p.m., to the right side of the slide, the Google
23 location put the phone in an area, and I can't read the street,
24 from here in Canutillo in the general area of where the
25 victim's house was and then some additional locations starting

1 at 8:24 p.m., and it looked like based on those that the phone
2 had moved slightly west and was moving west back to the area of
3 Mr. Arroyo's work, and there was another cluster of Google
4 locations from 8:37 p.m. to 10:58 p.m. near Mr. Arroyo where he
5 worked.

6 Q Moving to slide 12, what does it show?

7 A Slide 12 is, again, Google locations on
8 December 9th, 2018. This is a cluster of events from
9 12:01 p.m. until 12:11 p.m., and all of them were in the
10 general area near Mr. Arroyo's residence.

11 Q What is slide 13 showing?

12 A Slide 13, there was one location at 12:23 p.m.
13 a little bit after the earlier slide that is in between
14 Mr. Arroyo's residence and Gallegos Park.

15 Q Slide 14?

16 A Slide 14 shows, again, the Google location history on
17 that same day from 12:33 p.m. to 1:30 p.m. All of the
18 locations were in and around Gallegos Park.

19 Q Slide 15?

20 A Slide 15 is just the next time period of the same day,
21 December 9th, from 1:33 p.m. to 2:32 p.m. Again, the device is
22 all around the general area of Gallegos Park.

23 Q Slide 16?

24 A Slide 16 is starting at 2:33 p.m. until 2:43 p.m.
25 The device appeared to be moving north from where it had been

1 previously up back towards the area of Mr. Arroyo's residence.

2 Q Slide 17?

3 A Slide 17 is December 9th, 2018, from 2:46 until
4 2:59 p.m. The phone had several events all in the general area
5 of Mr. Arroyo's residence.

6 Q And, obviously, slide 18?

7 A Just the end of the report.

8 MR. MANGELS: One moment?

9 THE COURT: Yes, sir.

10 MR. MANGELS: Pass the witness. Thank you.

11 THE COURT: Thank you.

12 Mr. Werge?

13 MR. WERGE: Thank you, Your Honor.

14 THE COURT: Yes, sir.

15 RECROSS-EXAMINATION BY:

16 MR. WERGE:

17 Q Good afternoon. A couple of things to tidy it up.
18 CDRs, Call Detail Records, are billing records is your
19 testimony with Mr. Mangels?

20 A Similar to billing records but have additional tower
21 information that you don't see in the regular billing records.

22 Q But they are used primarily for billing purposes?

23 A Both for billing and for network maintenance, yes,
24 that is correct.

25 Q Sir, you also testified that, correct me if I'm wrong,

1 the most precise location technique would be E911 data?

2 A I don't know what you mean.

3 Q E911 operator, the FCC system to locate 911 calls,
4 emergency calls?

5 A It depends. E911 uses different techniques. You can
6 have different E911 results. Depends what the phone company
7 did.

8 Q Is 911 call location more accurate than this system?

9 A Which system?

10 Q Your system.

11 A Sometimes.

12 Q Is GPS more accurate than your system?

13 A It is not more accurate. I would say more precise.

14 Q Tell me the difference between precision and accuracy.

15 A Accuracy means is it correct. Things can be accurate.
16 The phone records are accurate. GPS location is accurate.
17 Your WiFi location is accurate.

18 Precision is how much can I narrow it down. The phone
19 location that we use with the Call Detail Records is accurate.
20 Your phone was in the coverage area of that tower. It is just
21 not as precise as some of the other ways to try to locate a
22 phone.

23 I can tell you the tower points in this direction and it is
24 covering this general area, but I can't tell you exactly where
25 the phone was in that area. I just know it was in that area

1 somewhere. Where GPS sometimes, not always, WiFi sometimes,
2 not always, can -- they are just as accurate but can narrow it
3 down to a smaller area where sometimes GPS can show you where
4 the phone was right here in this location where the call
5 records can't and are not that precise but still accurate you
6 were still in the coverage area of the tower.

7 Q Thank you. Let me run a hypothetical by you. Assume
8 that the Call Detail Records are 80% accurate, would that
9 change your opinion that you provided today?

10 A Well, yes, but they are not 80% accurate. The
11 Call Detail Records -- it is not generated unless the phone
12 connects. If the phone didn't connect to that side of the
13 tower, there would be no record. If the phone did, it did.

14 Q Just to make sure, you are saying that T-Mobile
15 billing records, from the FBI's perspective, are 100% accurate?

16 A I am talking about the portion of the records that the
17 phone connected to a specific side of the specific tower is
18 accurate.

19 THE COURT: Do you want to -- go ahead.

20 Q I think you testified before that you have not
21 conducted any independent validation of the
22 Call Detail Records?

23 A We test them in the field every day. We used the
24 records thousands of times to find --

25 THE COURT: Sorry, struck. It is not responsive. Ask

1 your question.

2 A Sorry. Rephrase.

3 Q Yes, sir. Have you validated Call Detail Records from
4 T-Mobile?

5 A Yes. Every day by using them.

6 Q What is your technique of validating that you verified
7 that those billing records are 100% accurate?

8 A We take the records, the records tell us which tower
9 the phone connected to, and we have found evidence, people,
10 dead bodies, fugitives in that coverage area of the tower that
11 matched what the records told us.

12 Q Did you personally do the math on that validation?

13 A No, sir. I am not talking about a mathematics
14 formula. I am talking about practical experience.

15 Q What is the software that you used to do that
16 validation?

17 A We actually have a mapping program that just maps for
18 us and puts it into a generally accepted mapping system. We
19 actually hand check the records. I just look at the records
20 and look at the location of the tower.

21 Q Who has validated your mapping software?

22 A We use a variety of accepted mapping programs such as
23 Google Earth and Google Maps. I couldn't tell you who
24 validated those. We use commonly used maps.

25 Q The answer is you can't tell us if they have been

1 validated?

2 A I haven't seen any studies personally, no, sir.

3 Q You also testified that the locations in your report
4 are the "general area?"

5 A Yes, sir.

6 Q What is the radius of the general area?

7 A It depends on which set of records you're talking
8 about.

9 Q What is the radius of a tower by T-Mobile in this case
10 that you provided us?

11 A There is not a set radius for T-Mobile towers.

12 Q Let me shift subjects. Is a cell phone designed as a
13 tracking device?

14 A I would say not initially, no.

15 Q Let me ask you, will a cell phone signal always be
16 routed to the tower closest to it?

17 A No. The vast majority of the time, it will. It just
18 goes to the strongest signal. It can sometimes connect to a
19 tower a little further away.

20 Q Thank you. Conversely, will a cell phone signal
21 always connect to the tower further from it?

22 A No, it definitely does not.

23 Q Will a cell phone pick the tower that has the least
24 amount of traffic?

25 A No, it does not.

1 Q Will the signal be connected by a switching device?

2 A Once the phone has connected to the tower, then it is
3 sent, the signal is sent to the switching device.

4 Q Do you know where the switching device is in your
5 diagrams?

6 A I can't remember off the top of my head, no, sir.

7 Q Will a cell phone always be routed to the tower with
8 the strongest signal?

9 A At the moment it is conducting the activities such as
10 caller text or data, yes, it will go to the tower that at that
11 moment sees the strongest.

12 Q Let me switch topics again to try to identify how your
13 expert opinion is helpful.

14 Does your opinion provide us any type of evidence of
15 whether there has been any kind of coercion, force, violence in
16 this case?

17 A Not in this case, no, sir.

18 Q Does it help us understand the intent of Mr. Arroyo or
19 anybody in this case?

20 A Not as far as I know. It just shows the location.

21 Q I want to make sure. That's a general location,
22 right?

23 A Yes, sir.

24 Q Experts have actually said, sir, that location or that
25 radius can be anywhere from 20 to 22 miles?

1 A No, sir. I don't think that's correct.

2 Q You don't think that is correct?

3 A No, sir.

4 Q Sir, did you use any engineering maps in your study?

5 A No, I did not.

6 Q Would you agree with me that the engineering maps are
7 the most accurate and relevant method of determining the
8 signals?

9 A Which kind of engineering maps are you talking about?

10 Q The telephone company engineering maps.

11 A No. They are not the most accurate.

12 Q They are not?

13 A Drive testing is the most accurate.

14 Q Sorry?

15 A Drive testing is the most accurate measurement of the
16 coverage area.

17 Q When did you do drive testing on this case?

18 A I did not. That is the most accurate method if you
19 are trying to show the actual coverage area of the tower, yes.

20 Q Did you do any analysis of the cell phone activities
21 on December 4th?

22 A There was not any mappable activity during the times
23 where there is no cell phone activity shown on the report.

24 Q Did you measure the antenna height in your model?

25 A I did not.

1 Q Did you measure the antenna power?

2 A I did not.

3 Q Did you look at the terrain?

4 A On Google Earth, I did some, sir.

5 Q Terrain and clutter will effect signals?

6 A Yes, sir.

7 Q Did you look at the traffic patterns for the given
8 days you were looking at?

9 A No, I did not.

10 Q Did you take any kind of linear measurements?

11 A What do you mean?

12 Q Did you actually do any actual surveying by linear
13 measurements of towers to the radius you mapped out?

14 A I looked at the distance between the tower and the
15 relevant locations.

16 Q Do these records, or the Call Detail Records, tell us
17 precisely where a handset is at?

18 A No, They do not.

19 Q Based on the fact it is not precise and a general
20 area, sir, you would agree with me that your opinion cannot be
21 100% accurate?

22 A No. My opinion is accurate. The phone was in the
23 coverage area of the tower. That's accurate.

24 Q Would you agree with me -- the question was it is not
25 100% accurate?

1 A I'm not sure what you are asking. My opinion is that
2 the phone was in the coverage area of the tower that was
3 displayed in the records. That is accurate.

4 Q It is not 100% accurate, and it is not 90 or 80. You
5 can't tell us the rate?

6 A It is 100% accurate the phone used that side of the
7 tower.

8 Q Let me call your attention --

9 THE COURT: This is not in evidence.

10 MR. WERGE: Yes, sir.

11 Q I am showing you what is marked as
12 Defense Exhibit 5. Do you recognize this?

13 A I can.

14 MR. MANGELS: I will object as to authentication,
15 foundation, and hearsay.

16 THE COURT: Sustained. I don't know how he is going
17 to use it. If he will ask if he seen that or acquainted with
18 the study, it is one thing. He is not offering it for
19 admission, right?

20 MR. WERGE: I am offering to impeach him, Your Honor.

21 THE COURT: You are not offering it as an exhibit for
22 admission or are you?

23 MR. WERGE: Yes.

24 THE COURT: I sustained the objection at this point.
25 Go ahead.

1 MR. WERGE: Thank you.

2 Q Do you recognize the Washington Post as a national
3 periodical in the United States?

4 A It appears to be an article from the Washington Post.

5 Q Can you recognize the date it was published?

6 A It says June 27th, 2014.

7 Q Based on what you are seeing, does this appear to be a
8 true and accurate representation of the article published by
9 this periodical?

10 MR. MANGELS: Objection. Authentication, foundation,
11 and hearsay.

12 THE COURT: Sustained.

13 MR. WERGE: I'll move on.

14 THE COURT: Go ahead.

15 Q At the end of the day, you are familiar with the
16 numerous scientific articles that precisely say this is junk
17 science?

18 A I am familiar what some articles, not scientific
19 articles.

20 Q You are not?

21 A To my knowledge, there is no scientific articles
22 saying this is junk science. There are some legal articles but
23 not scientific articles.

24 Q There's an article out of the University of Duke
25 School of Law that precisely said people have been wrongfully

1 convicted with this kind of junk science.

2 MR. MANGELS: Objection.

3 THE COURT: What is the objection?

4 MR. MANGELS: Relevance, authentication, foundation,
5 hearsay.

6 THE COURT: Sustained. Rephrase.

7 MR. WERGE: Thank you.

8 Q You are familiar with legal arguments that state that
9 this kind of so called science has led to wrongful conviction?

10 MR. MANGELS: Objection. Argumentative.

11 THE COURT: Overruled. Are you familiar with that?

12 A I have heard some arguments made that it is junk
13 science, yes, Your Honor.

14 Q Sir, have you gone to any conferences where experts in
15 this field with outside validations and accreditations have
16 spoken about this matter?

17 A I have not been at any conferences, no.

18 Q Is it fair to say the only training you had is
19 in-house with the FBI?

20 A That's incorrect.

21 Q Incorrect?

22 A Yes.

23 Q When I asked you have you been to any outside
24 conferences, was your response no or yes?

25 THE COURT: We know what the answer was. Go ahead and

1 ask another question.

2 Q Has the National Academy of Science accepted this
3 science as reliable?

4 A I don't know.

5 Q Do you know who the National Academy of Science is?

6 A I heard of it, yes, sir.

7 Q Can you tell the jury what you know about the
8 National Academy of Science?

9 A I know the National Academy of Science is a group of
10 scientists who conduct research and put out scientific papers
11 about different topics in science.

12 Q Have you received any training by the
13 Federal Communications Commission?

14 A No, I have not.

15 Q Would you agree with me that the
16 Federal Communications is the preeminent authority with the
17 United States government in terms of telecommunications?

18 A Yes, they are.

19 MR. WERGE: Thank you. I pass the witness.

20 THE COURT: I have a question. On the list you
21 provided to me, I think the matter that you moved for admission
22 you indicated was No. 5. The list I have has it as No. 3. Was
23 there an updated list provided?

24 MR. WERGE: There must have been, but --

25 THE COURT: For purposes of the record, I want to make

1 sure the record has the correct identifier as to what was not
2 admitted.

3 MR. WERGE: Yes, sir.

4 THE COURT: We'll correct that at the break.

5 Mr. Mangels, go ahead.

6 MR. MANGELS: Thank you, Your Honor.

7 REDIRECT EXAMINATION BY:

8 MR. MANGELS:

9 Q Agent MacManus, you mentioned you were familiar with
10 some legal articles characterizing your techniques?

11 A Yes. I am referring to the article that Defense
12 counsel mentioned in the Duke Law Journal.

13 Q That article was -- do you know who it was written by?

14 A Yes. It was written by a company called
15 Cherry Biometrics.

16 Q What do they do?

17 A Cherry Biometrics is a company started by an
18 entrepreneur named Michael Cherry who get paid to testify for
19 defense attorneys.

20 Q Their criticisms is primarily of the cell site
21 location data. Is that correct?

22 A Yes, it is.

23 Q Not critiquing the GPS location data?

24 A No, it was not.

25 Q All of your testimony relating to how the GPS location

1 data matches up with the cell site location data would not be
2 encompassed in their critique?

3 A Not in that article.

4 MR. MANGELS: Nothing further, Your Honor.

5 THE COURT: Mr. Werge, anything else?

6 MR. WERGE: Just two quick questions.

7 RECROSS-EXAMINATION BY:

8 MR. WERGE:

9 Q Is Michael Cherry a recognized expert in this field?

10 A No, he is not.

11 Q He is a consultant for NASA?

12 A A consultant and not a recognized expert. He never
13 testified as an expert witness in any court about --

14 THE COURT: Two questions. Go ahead.

15 Q He hasn't been trained by the FBI, right?

16 A No, sir.

17 Q But he does have certifications?

18 A Not to my knowledge, sir.

19 Q The other writer -- who is the other author on that
20 Duke Law Journal article?

21 A I think there were several authors, and several
22 attorneys, and Manfred Shank who is an employee of Mr. Cherry.

23 Q There's a well known law professor, Mr. Wingelreed,
24 that also authored that article?

25 A That name sounds right. I was not familiar to know he

1 was a professor.

2 Q From the University of California?

3 A I believe so. It sounds right.

4 Q The whole premise is this is utter junk science?

5 A This was their argument in the article.

6 MR. WERGE: Thank you, sir.

7 Pass the witness.

8 THE COURT: Thank you. Agent MacManus, you're done.

9 You may go ahead and step down.

10 May the witness be excused?

11 MR. MANGELS: Yes, Your Honor. Thank you.

12 THE COURT: You are excused and discharged as a
13 witness. You may go ahead and step down.

14 Who is the next witness?

15 MR. MANGELS: Stephanie Knapp. Before that, we would
16 like to offer and publish the Stipulation of Facts that was
17 entered into by the United States and the Defense.

18 THE COURT: Ladies and Gentlemen, the
19 Stipulation of Facts are the few items in which both parties
20 have agreed. They are going to be read into the record. You
21 are to accept these facts. It basically obviates the need for
22 having anyone else come in and testify and prove these facts.
23 These are facts that are agreed to by both parties.

24 Go ahead, Mr. Mangels.

25 MR. MANGELS: Thank you.

1 For the record, this is a Government's Exhibit 27 which we
2 would offer into evidence at this time.

3 THE COURT: Without objection, Mr. Werge?

4 MR. WERGE: No objection.

5 THE COURT: The Stipulation of Facts is admitted.

6 MR. MANGELS: With the Court's permission, we will
7 publish to the jury by putting it on the screen and by reading
8 it.

9 THE COURT: Fine.

10 MR. MANGELS: Stipulation of Facts. Comes now the
11 United States of America by and through its U.S. Attorney for
12 the Western District of Texas, and Antonio Arroyo, Jr,
13 Defendant in the above entitled and numbered cause,
14 individually, and by and through his attorney of record and
15 jointly file the Stipulation of Facts, and said parties
16 represent to the Court that the following facts are stipulated
17 and are not in dispute.

18 No. 1; the Government and Defendant stipulate that the
19 conversion from Coordinated Universal Time, UTC, to
20 Mountain Standard Time, MST, is minus seven hours.

21 No. 2; the Government and Defendant stipulate that the
22 following GPS coordinates are at or near the following
23 locations.

24 A; 31.8587603, negative 106.6925926, 150 Industrial Road,
25 Santa Teresa, New Mexico.

1 B; 31.915, negative 106.608, Canutillo La Union Avenue in
2 Canutillo, Texas.

3 C; 31.927, negative 106.613, Gallegos Park,
4 Canutillo, Texas.

5 Respectfully submitted by John F. Bash, United States
6 Attorney by Christopher Mangels, Assistant United States
7 Attorney. Signed by Antonio Arroyo, Jr, Defendant, and
8 Art Werge, Defense attorney.

9 At this time, the United States calls Stephanie Knapp to
10 the stand.

11 THE COURT: Give me an estimate how long you will be
12 on direct more or less?

13 MR. MANGELS: On direct, approximately 10 to 15
14 minutes perhaps.

15 THE COURT: Bring in Ms. Knapp.

16 Raise your right hand. Do you solemnly swear the testimony
17 you give in this cause will be the truth, the whole truth, and
18 nothing but the truth so help you God?

19 AGENT KNAPP: I do.

20 THE COURT: Thank you very much. You may be seated.
21 As you get comfortable in that chair, adjust the microphone so
22 it is in front of you. You don't have to be right up against
23 it. I can control the volume. I need to be sure everybody in
24 the courtroom can hear you.

25 State your name for the record, and spell your last name,

1 and tell me what you do and how long you have been doing it.

2 MS. KNAPP: My name is Stephanie Knapp. I am a
3 licensed criminal sociology worker and a child and adolescent
4 forensic interviewer for the FBI. I have been with the FBI as
5 a contractor since 2001 and full-time with the FBI starting in
6 2006.

7 THE COURT: Thank you. You are under oath.

8 Mr. Mangels, go ahead.

9 MR. MANGELS: Thank you, Your Honor. May it please
10 the Court.

11 THE COURT: Thank you, sir.

12 DIRECT EXAMINATION BY:

13 MR. MANGELS:

14 Q I heard about your background. What do you do
15 basically?

16 A My primary responsibility is to conduct forensic
17 interviews of victims and witnesses of federal, state, and
18 travel crimes.

19 Q What does that involve?

20 A Primarily, what we do is interview children,
21 teenagers, and adults when there is a concern or a belief they
22 may have been a victim or witness to a potential crime.
23 Oftentimes, we provide assistance to our local partners, the
24 travel partners, as well as to both state, local, and federal
25 crimes.

1 Q I will show you what was marked as
2 Government's Exhibit 26. Do you recognize this document?

3 A Yes. It is my curriculum vitae.

4 Q Is this a fair and accurate copy of your
5 curriculum vitae?

6 A I believe so.

7 MR. MANGELS: We move to admit Government's Exhibit 26
8 into evidence.

9 THE COURT: Mr. Werge?

10 MR. WERGE: No objection.

11 THE COURT: 26 is received. Go ahead.

12 MR. MANGELS: Thank you, Your Honor.

13 Q Please go through your educational background briefly.
14 Can you describe for the jury your educational background?

15 A I received my Bachelor's Degree in Social Work with a
16 minor in Spanish in 1992 from the College of Saint Catherine in
17 Saint Paul, Minnesota. I received my Master's Degree in
18 Social Work with a dual emphasis in health in children, youth,
19 and families from Denver University. I went on to be gainfully
20 employed.

21 Q Briefly talk about the kind of training you had in the
22 area of child forensic interviewing?

23 A When I first started in the field of social work, I
24 actually was a child protection worker in Jefferson County,
25 Colorado. It is when I received my first forensic interview

1 training. It was way back in the early 1990s and late 1990s.
2 That's evolved over time. I received training ongoing.

3 At this point, I actually conduct trainings both nationally
4 and internationally on forensic interviewing and how to conduct
5 legally defensible sound forensic interviews.

6 Q How many prior cases have you worked?

7 A Prior cases in general?

8 Q A ballpark number of the cases you have worked.

9 A As a forensic interviewer?

10 Q Yes, ma'am.

11 A I have probably conducted around 5,000 forensic
12 interviews in my capacity with the FBI.

13 Q Thank you. Have you ever testified previously as an
14 expert in the field of child forensic interviewing?

15 A Yes, I have.

16 Q In state or federal court?

17 A Both.

18 Q Have you ever been offered as an expert but not
19 recognized as an expert?

20 A Yes, I have.

21 Q When was that?

22 A I'm not sure I can give you the exact dates. I know I
23 was an expert in the state of --

24 Q Sorry. The question was have you ever been offered as
25 an expert but not recognized as an expert?

1 A No. I have always been recognized as an expert.

2 Q Thank you, I apologize.

3 MR. MANGELS: At this time, we offer Ms. Knapp as an
4 expert in the field of child forensic interviewing.

5 THE COURT: Mr. Werge, questions as to qualifications
6 or what is your position?

7 MR. WERGE: No objection, Your Honor.

8 THE COURT: The witness will be allowed to testify as
9 an expert in her designated field.

10 Again, I remind you that if scientific, technical, or other
11 specialized knowledge might assist the jury in understanding
12 the evidence or in determining a fact in issue, a witness
13 qualified by knowledge, skill, experience, or training may
14 testify and state an opinion concerning such matters.

15 Go ahead, Mr. Mangels.

16 MR. MANGELS: Thank you, Your Honor.

17 Q What is involved in a child forensic interview?

18 A A forensic interview is a legally defensible
19 interview. It is used to obtain a statement from an individual
20 in a developmentally sound way in order to obtain information
21 for both civil and criminal court processes in order for sound
22 decision making to be made. Basically, it is to elicit
23 information that is plentiful so as much information as you can
24 but that it is accurate. The information is then used to
25 assist the investigation.

1 Q How is a child forensic interview different from
2 another type of interview that a law enforcement agent might
3 do?

4 A Forensic interview has been researched actually
5 extensively since the 1980s. The point of it is, again, elicit
6 as much accurate information as possible.

7 THE COURT: Struck, disregard. Ask the question. How
8 is it different is the question.

9 A If you're comparing it to an interrogation, the goal
10 is not to provide your interviewee with the answer or
11 information. It is get information from them in a way that is
12 based in their language according to their development in their
13 own words. Their information as opposed to me giving them
14 information to just repeat.

15 Q Would a child forensic interview be different from an
16 interview you would do of an adult?

17 A Yes. The research is based on individuals under the
18 age of 18. It is specific to the development of children,
19 teens, and adolescents.

20 Q Have you heard the term "compliant victim" before?

21 A Yes.

22 Q What is a compliant victim?

23 A Compliant victim is somebody who will participate,
24 cooperate, and engage, and sometimes even initiate their own
25 victimization.

1 Q How would you know if someone is a compliant victim?

2 A Based on their behavior, based on what they say and
3 what they do. Compliant victims oftentimes don't identify
4 themselves as victims so they don't see what is happening in
5 the process of the victimization or the violation as something
6 that they are a victim of.

7 Again, it is about them feeling like they are controlling
8 the situation and not identifying themselves as somebody who
9 has been wronged or there is anything wrong with the behavior
10 that is happening. It is more of an emotional for them
11 definition as opposed to a criminal or legal definition.

12 Q In other words, criminally, they may be a victim but
13 don't see themselves as a victim?

14 A They don't see themselves emotionally, or
15 psychologically, or cognitively as a victim at all.

16 Q Are there things in the child's background that would
17 make them more likely to be a compliant victim?

18 A There are risk factors we look at. The way that I can
19 help people understand compliance is kids who are looking to
20 fill a void, an absence or void, of something in their lives
21 whether it is perception of love, understanding, support,
22 validation, and oftentimes especially teenagers are more
23 susceptible to that. They want to be grownup, and want to act
24 like grownups, and want the privileges of being a grownup but
25 don't have the developmental capacity to make the good really

1 sound distinctions. It is one of the things we look at or the
2 risk factors that make them vulnerable to behaviors that other
3 people may manipulate or take advantage of to engage them in
4 behavior that is potentially criminal.

5 Q Does every child react the same way when they are in a
6 sexual relationship with an adult?

7 A No. Each child's circumstance is different. It is
8 the vulnerabilities that make them and put them at risk for
9 even initially engaging in those behaviors.

10 You may have a teenager who has no intention of engaging in
11 a sexual behavior, but then based on the manipulation of the
12 adult using those risk factors and that need for love that
13 desire for attention and using that to manipulate them into
14 engaging in a sexual behavior or you may have a teenager who
15 may be sexually promiscuous based on lots of other reasons, and
16 they do have the intent of engaging in the sexually
17 inappropriate relationships. It depends what the risk factors
18 are for that individual child.

19 Q Is it fair to say you have seen a range of different
20 behaviors in ways that children have reacted when they are in
21 relationships with adults?

22 A Absolutely.

23 MR. MANGELS: May I have a moment?

24 THE COURT: Yes, sir.

25 Q Are you familiar with the term "process of

1 disclosure?"

2 A Yes, I am.

3 Q What does that describe?

4 A The process of disclosure is the one concept that
5 researchers across the board in forensic interviewing actually
6 agree on in terms of the numbers, and basically what it is is
7 understanding when victims or witnesses are in a state of being
8 ready to talk about, or disclose, or tell about what happened
9 in their lives, whether they define themselves as a victim or
10 not, oftentimes it is not a one time event. It is something
11 that happens over time, and happens when they are safe, and
12 happens when they feel like they can trust the person who they
13 are disclosing to, and there is lots of things that effect when
14 and how a person is going to be able to talk about the things
15 that may have happened to them.

16 Q Does this mean that they are lying about everything
17 they are disclosing?

18 A No, not at all. Everyone lies. I think the bigger
19 question is to ask how come what is going on? Is it really a
20 lie or is it information that was obtained because questions
21 were asked in a different way in a different place by a
22 different person. That's why the significance of asking
23 forensically sound questions is important because you want to
24 make sure that how you ask a question is going to elicit the
25 most accurate and honest information possible.

1 MR. MANGELS: One moment?

2 THE COURT: Yes, sir.

3 MR. MANGELS: Pass the witness.

4 THE COURT: Mr. Werge?

5 MR. WERGE: Thank you, Your Honor.

6 THE COURT: Yes, sir.

7 CROSS-EXAMINATION BY:

8 MR. WERGE:

9 Q Good afternoon.

10 A Good afternoon.

11 Q Thank you for being here, ma'am.

12 A forensic interview is one element of a comprehensive
13 child exploitation investigation?

14 A Correct. It can be, yes.

15 Q Generally speaking, the best practice is to do the
16 forensic interview first?

17 A That's --

18 THE COURT: That's a question. You would agree?

19 Q Would you agree that -- I will rephrase the question.
20 You would agree that doing the forensic interview first is the
21 accepted best practice?

22 A Not necessarily. If I can explain, I will explain
23 why.

24 Q I will accept your answer. I will let Mr. Mangels, if
25 he wants, to elicit it.

1 In fact, in this case, I am sure you know it was not the
2 first interview of Ms. Reyes?

3 MR. MANGELS: Objection. Outside the scope of direct.

4 THE COURT: It is cross-examination. It is overruled.
5 Go ahead.

6 Q In fact, ma'am, are you aware that Ms. Reyes was
7 interviewed five times?

8 A I was not aware of that.

9 Q Are you aware, as a forensic interviewer, the dangers
10 of multiple interviews of a minor or child?

11 A Yes, I am.

12 Q In fact, literature says you have to be careful
13 because it lends the suggestibility of what the answers are
14 looked for, correct?

15 A Correct. There are inherent risks to multiple
16 interviews and the issue of taint, or contamination, or
17 suggestibility are certain issues. When a forensic interview
18 is conducted, it is one of the things you have to be wary of.

19 Q One of the other elements in a comprehensive child
20 exploitation investigation is to involve
21 Child Protective Services?

22 A I think -- again --

23 THE COURT: You need to rephrase the question.

24 Q You would agree that one of the other elements in a
25 comprehensive child abuse or exploitation investigation may be

1 to engage with Child Protective Services?

2 MR. MANGELS: I will object. This is outside of the
3 scope.

4 THE COURT: Overruled. She is your expert. She is up
5 there testifying. You can ask questions. It is
6 cross-examination. It allows the jury to make a credibility
7 determination. Go ahead.

8 A I would agree, like you said, it may, but it certainly
9 depends on the many factors.

10 Q Thank you. The situation?

11 A Absolutely.

12 Q It is not mandatory, right? Ma'am, let me take a
13 hypothetical. If you have a minor that the FBI knows may be
14 using illicit drugs, and may have been raped in the past, would
15 that be a mandatory referral to CPS based on your knowledge and
16 experience?

17 A That's too limited of a scope. I have to ask a lot
18 more questions before I said yes, Child Protection needs to be
19 involved. I don't know.

20 Q Another part of a comprehensive child exploitation
21 investigation is to conduct a forensic or medical examination?

22 A Again, it depends. As you know, I worked in the
23 medical field as a child protection worker in Denver, Colorado,
24 and ran the child protection team. Unfortunately, too many
25 people have a false sense of what a forensic sexual exam fully

1 means when it is indicated, when it is not indicated. No,
2 medical exams for forensic purposes are not always indicated.

3 Q Just for the child's well being, isn't there a duty of
4 care to make sure that minor doesn't have any medical issues as
5 a result of the alleged activity?

6 A I would agree. I think we are talking two separate
7 things. There is a difference between a forensic medical exam
8 for forensic purposes and a medical care exam to assure safety
9 and well being of their body.

10 Q I appreciate that. Let's take one. You would agree
11 that conducting a medical exam is a best practice in this
12 field?

13 A I think if it is indicated based on the history and
14 other factors that would lend it to that. Again, I don't know
15 exactly what we are talking about. I would not make a blanket
16 statement. It never hurts to get a good medical exam.

17 Q Did you investigate the child's family?

18 A Did I?

19 Q Yes, ma'am.

20 A No. It is not my role.

21 Q Did you investigate her social network?

22 A Not my role.

23 Q Did you investigate her socioeconomic environment?

24 A Not my role.

25 Q Did you investigate the cultural influences that tend

1 to effect her?

2 A I spoke with mom prior to the interview to obtain my
3 developmental assessment which did include a social history in
4 talking with mom and the factors of the family, yes.

5 Q Did you review the school records of the minor?

6 A No, I did not.

7 Q Did you review any CPS records of the minor?

8 A No, I did not. All of that information, I interviewed
9 mom prior to the interview to elicit that information.

10 MR. WERGE: Thank you. I pass the witness.

11 THE COURT: Anything else, Mr. Mangels?

12 MR. MANGELS: Briefly.

13 THE COURT: Go ahead.

14 REDIRECT EXAMINATION BY:

15 MR. MANGELS:

16 Q You indicated that a forensic exam would not be
17 indicated in all cases?

18 A Correct.

19 Q Is time an important factor in whether a forensic exam
20 is indicated or not?

21 A Time is one of the most important factors because to
22 conduct a forensic exam, and to elicit forensic evidence, there
23 is a certain period of time in which the opportunity to get
24 forensic evidence dissipates or lessens the longer away from
25 the actual alleged event happens.

1 Therefore, if you have even say a week beyond when an
2 event, sexual event, were to have happened, that child or
3 person may have showered, urinated, defecated, and lots of
4 different ways to get rid of the forensic collection. Any time
5 after that is actually not indicated to do a full forensic or
6 SANE exam.

7 More importantly, it would be about getting a healthy
8 medical exam, as counsel was suggesting, to make sure the body
9 is safe, healthy, and no concerns of pregnancy, sexually
10 transmitted infections, or other factors that really are more
11 significantly important for the care of that victim.

12 Q How about two months? Would a SANE exam be indicated
13 if the interview occurred two months after the alleged sexual
14 incident?

15 A I am not a current medical provider. When I was
16 practicing in the medical field, 72 hours was the period of
17 time. That may have changed. Two months, I would say without
18 a doubt, there would be limited opportunity for forensic
19 collection.

20 Q In your experience, is the FBI generally involved with
21 providing medical healthcare examinations to victims?

22 A No. Those are referrals that are made to other
23 providers.

24 Q That can be made?

25 A Absolutely.

1 Q Is it incumbent upon the FBI to always make such a
2 referral?

3 A No, not necessarily. It depends who the care team is
4 and the members of the multidisciplinary team. It may be
5 Child Protection, it may be the parent. It could be lots of
6 different people.

7 Q You mentioned you had spoken with Ms. Reyes's mother
8 prior to speaking with Ms. Reyes, right?

9 A Correct. And after the interview as well.

10 Q You identified some risk factors with respect to
11 Ms. Reyes?

12 A If I remember correctly, yes.

13 Q Briefly, what are a couple of the risk factors you
14 identified?

15 A One of the things that mom had expressed as a concern
16 was her behavior or her kind of risk for running away. She, I
17 believe, had been sexually active, that she had already in the
18 home a teenage -- older sister who, I think, was still a
19 teenager and already had one child which had another pregnant,
20 I think, with another one or had an infant. She was really
21 doing some attention seeking behavior. There was no primary
22 positive role model in the family that mom had a boyfriend, I
23 believe, in the home but was not a significant positive
24 influence for her.

25 Q Safe to say a number of risk factors for Ms. Reyes?

1 A Yes.

2 Q That put her at high risk of developing an
3 inappropriate relationship with and adult?

4 A Certainly vulnerable to it.

5 MR. MANGELS: Nothing further.

6 THE COURT: Mr. Werge?

7 MR. WERGE: No questions.

8 THE COURT: Thank you. You may step down. Thank you
9 for coming.

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CERTIFICATION

I certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter. I further certify that the transcript fees and format comply with those prescribed by the Court and the Judicial Conference of the United States.

Date: December 17, 2019

/s/ Walter A. Chiriboga, Jr.

Walter A. Chiriboga, Jr.